

REMARKS

Summary of the Office Action

The drawings are objected to under 37 C.F.R. § 1.83(a). The drawings must show every feature of the invention specified in the claims.

Claim 8 stands rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 14, 16, and 18 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-30 and 32 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Miyashita (US 6,011,602).

Claim 31 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Miyashita in view of Yamashita, (US 2002/0163790).

Summary of the Response to the Office Action

Claims 1, 8-9, 14, 16, 18-22, 26-28 and 30 have been amended and claim 3 has been canceled without prejudice or disclaimer. Also, A Submission of Replacement Drawing Sheets is filed concurrently herewith to replace the previously-filed drawing sheets. Moreover, Applicants have amended the specification to comply with the amendments to the drawings. No new matter has been added by this Amendment. Accordingly, claims 1-2 and 4-32 remain pending in this application for further consideration.

Objection to Drawings

The drawings are objected to because of failing to comply with 37 C.F.R. § 1.83(a). Applicants respectfully submit herewith a Submission of Replacement Formal Drawings including 16 sheets of drawings containing 25 drawing figures to replace the previously filed drawing sheets in the above-identified application. As detailed in the Submission of Replacement Formal Drawing, Applicants have amended FIGs. 2, and added new FIGs. 21-25 in accordance with the Examiner's requirements set forth in the Office Action dated March 4, 2008. Applicants respectfully submit that no new matter is introduced by the replacement drawings.

Moreover, as to the drawing objection under 37 CFR 1.83(a), Applicants respectfully note that the "non-single planar surface has both one or more planar surfaces and one or more convex curved surfaces," as required by Claim 7, is shown in Fig. 17, wherein the second prism face 45 is divided into four areas including two planar surfaces 49, 50 and two convex curved surfaces 51, 52 as described in the description on page 26, line 6-19.

Accordingly, Applicants respectfully submit that the drawings now fully comply with 37 C.F.R. § 1.83(a), and request that the objection to the drawings be withdrawn.

Rejections under 35 U.S.C. § 112, Second Paragraph

Claims 8, 14, 16 and 18 stands rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants have amended the claims to address the Examiner's concerns set forth in the Office Action. Accordingly, Applicants respectfully request that the rejections under 35 U.S.C. § 112, second paragraph, be withdrawn.

All Claims Define Allowable Subject Matter

Claims 1-30 and 32 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Miyashita, and claim 31 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Miyashita in view of Yamashita. To the extent that the rejections might be applied against the claims as newly-amended, they are respectfully traversed as being based on a reference or a combination of references that neither teaches nor suggests the novel combination of features recited in the claims.

With respect to each of independent claims 1, 27 and 28, as newly-amended, Applicants respectfully submit that Miyashita does not teach or suggest the claimed combination including the at least following features:

(a) the first prism face being a single planar surface is arranged to receive the incident light to introduce it into the light deflector, and a vertex split angle α of the first prism face is 2 to 25 degrees.

(b) the second prism face being a non-single planar surface is arranged to reflect an introduced light toward the light output surface, and a vertex split angle β of the second prism face is 33 to 40 degrees, and

(c) a difference ($|\alpha - \beta|$) between the vertex split angle α and the vertex split angle β is 8 to 35 degrees.

The present invention aims to provide a light source device that can emit light intensively with high efficiency of utilization of light emitted from the primary light source. It is important to adopt the above combination of (a), (b) and (c) in the light deflector according to the present invention. That is, the second prism face arranged to reflect the introduced light toward the light

output surface is non-single planar surface having a vertex split angle β of 33 to 40 degrees, while the first prism face being a single planar surface arranged to receive the incident light to introduce it into the light deflector is a single planar surface having a vertex split angle α of 2 to 25 degrees. Such features of the present invention are disclosed in detail in the description, especially in the embodiments and Examples described with reference to the drawings.

In contrast to the present invention of newly-amended independent claims 1, 27 and 28, the primary reference Miyashita merely discloses a lighting apparatus as shown in Fig. 15., in which a prism array 213 of the lighting apparatus does not have the above features, i.e., the combination of (a) to (c), of the present invention. In fact, a light reflecting surface arranged to internally reflect the light toward a light output surface 213e is not a non-single planar surface, but a single planar surface (a second surface 213r) having a vertex split angle $\theta 2$ of not 33 to 40 degrees, but 30 degrees. Moreover, the light receiving surface is not a single planar surface, but a combination of two input surfaces 213a and 213b having different inclination.

In the lighting apparatus of Miyashita, the light receiving surface intensifies the incident light when introducing the light into the prism array on the basis of function of the two input surfaces 213a and 213b having different inclination, while the light reflecting surface merely reflects the intensified light. On the other hand, in the present invention, the second prism face intensifies the light when internally reflecting the light on the basis of the function of the non-single planar surface. Applicants respectfully submit that it is advantageous to intensify the light by reflection rather than by refraction because the former requires less range of inclination difference for areas of the non-single planar surface as compared with the latter. That is, it is advantageous that the light is deflected and intensified by the second prism face substantially

without converging the light by the first prism face. In the present invention, the above ranges of vertex split angles α and β are specifically adopted for the case where the second prism face intensifies the light. Applicants respectfully submit that Miyashita does not disclose the vertex split angle β of the second prism face, which is 33 to 40 degrees. While the Office Action alleges that the vertex split angle β of 33 to 40 degrees would have been obvious, as mentioned in the above, such a feature is substantial for the spirit of the present invention.

Miyashita discloses another prism array in Fig. 17. It is respectfully noted that in the prism array of Fig. 17, three input surfaces 234a, 234b and 234c having different inclination intensifies the light and therefore, such a prism array is also different in substantial function from the light deflector of the present invention.

As mentioned in the above, since Miyashita neither teaches nor suggests the above-noted spirit and features of the present invention claimed in each of newly-amended independent claims 1, 27 and 28 as well as the claims depending therefrom, and Yamashita cannot remedy the above-noted deficiencies of Miyashita, Applicants respectfully submit that Mayashita and Yamashita, whether taken individually or in combination, do not teach or suggest the claimed combination including at least the above-noted features of the present invention claimed in each of independent claims 1, 27 and 28.

For at least the reasons as those set forth above, Applicants respectfully submit that the Office Action has failed to establish a *prima facie* case of obviousness with regard to newly-amended independent claim 1, 27 and 28, and hence its dependent claims 2, 4-26 and 29-32. Accordingly, Applicants respectfully assert that the rejections under 35 U.S.C. § 103(a) should be withdrawn.

Without other rejections pending, Applicants respectfully assert that claims 1-2 and 4-32 are in condition for allowance.

CONCLUSION

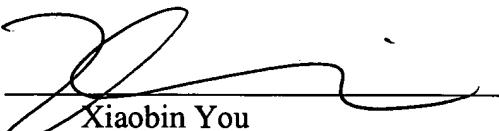
In view of the foregoing, Applicants respectfully request reconsideration and the timely allowance of the pending claims. Should the Examiner feel that there are any issues outstanding after consideration of the response, the Examiner is invited to contact the Applicants' undersigned representative to expedite prosecution.

If there are any other fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-0310. If a fee is required for an extension of time under 37 C.F.R. §1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,

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